

1   **Claims: I claim:**

2

3   1. A method for supplying oxygen to a biological entity comprising the steps of :

4       a. dissolving oxygen into a perfusate,

5       b. forcing the perfusate through the biological entity,

6       whereby substantially high levels of oxygen are available to satisfy the metabolic demand  
7       of the biological entity

8   2. An apparatus for supplying oxygen to a biological entity comprising:

9       a. a vessel capable of a predetermined internal gas pressure

10      b. a pressurized gas capable of producing a predetermined gas pressure within said vessel,

11      c. a pressure hose to deliver said gas

12      d. a perfusate

13      e. a pump to circulate said perfusate

14      f. an oxygenator to dissolve oxygen into said perfusate

15      g. a plurality of fluid delivery tubes to deliver said perfusate

16      h. a biological entity

17      i. a plurality of holes in said vessel necessary to allow said tubes or hose to pass through  
18      said vessel

19      j. a perfusate container

20      k. a means for attachment of said fluid delivery tubes to said perfusate container, said pump,  
21      said oxygenator, and said biological entity

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23       whereby substantially high levels of oxygen are available to satisfy the metabolic demand  
24       of said biological entity

25   3. An apparatus for supplying a metabolic supplement to a biological entity comprising:

26      a. a vessel capable of a predetermined internal gas pressure

27      b. a pressurized gas capable of producing a predetermined gas pressure within said vessel,

28      c. a pressure hose to deliver said gas

29      d. a perfusate

30      e. a pump to circulate said perfusate

31      f. an oxygenator to dissolve oxygen into said perfusate

32      g. a plurality of fluid delivery tubes to deliver said perfusate

33      h. a biological entity

- 1 i. a plurality of holes in said vessel necessary to allow said tubes or hose to pass through  
2 said vessel  
3 j. a perfusate container  
4 k. a means for attachment of said fluid delivery tubes to said perfusate container, said pump,  
5 said oxygenator, and said biological entity  
6 l. a metabolic supplement  
7 m. a plurality of access ports connected to said fluid delivery tube to allow the addition of  
8 metabolic supplements to said perfusate  
9  
10 whereby the effect of said metabolic supplement to said biological entity can be  
11 monitored  
12

add  
Air